

01/24/02  
  
JC923 U.S. PTO

This application is qualified  
as Small Entity.

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JC868 U.S. PTO  
10/05/02  


BE IT KNOWN that We, **Eli ZHADANOV and Sam ZHADANOV**, have invented certain new and useful improvements in

**DEVICE FOR HOLDING SHOWER ACCESSORIES**

of which the following is a complete specification:

BACKGROUND OF THE INVENTION

The present invention relates to a device for holding shower accessories.

Devices of the above mentioned general type are known in the art. It is believed that the existing devices can be further improved.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a device for holding shower accessories which avoids the disadvantages of the prior art.

In keeping with these objects and with others which will become apparent herein after, one feature of the present invention resides, briefly stated in a device for holding shower accessories which has an attachment element to be attachable to a supporting surface and operating on a vacuum principle; and a holding element which is movable relative to said attachment element between an operative position in which it applies a pressure of said attachment element and therefore provides an attachment on said attachment element to the surface and an inoperative position in which said holding element does not apply pressure to said attachment element and therefore said attachment element can be removed from the surface, said attachment element including a first end adapted to abut against said attachment element and a second end provided with an elongated tubular channel.

When the device is designed in accordance with the present invention it allows supporting various shower accessories in a reliable and convenient way in any specially oriented position.

BRIEF DESCRIPTION OF THE DRAWINGS

Figures 1 and 2 are a side view and a plan view of a device for holding shower accessories in accordance with the present invention;

Figure 3 is a view showing a further modification of the inventive device;

Figures 4 and 5 are a plan view and a side view of a further modification of the inventive device for holding shower accessories in; and

Figure 6 is a perspective view of the device of Figures 4 and 5 with a showerhead held by the device.

## DESCRIPTION OF THE PREFERRED EMBODIMENTS

A device for holding shower accessories in accordance with the present invention has an attachment element which is identified as a whole with reference numeral 1 and is formed as a vacuum attachment element. Such vacuum attachment elements are known in the art. An attachment element 1 has an inner elastic member 2 composed for example of rubber or plastic and an insert 3. A rod 4 is engaged with the insert 3 and has a throughgoing opening 5 and a substantially circular groove 6. The groove 6 serves for connection of the vacuum attachment element 1 with a holding element 7.

The holding element 7 has side walls 8 and 9 with small projections engaging in the opening 5 and forming an axle for turning the holding element 7 relative to the attachment element 1. The walls have a rounded portion 13 and are connected with one another at one side by a partition 10 which serves for locking of an operative position of the holding element 7.

The end of the holding element 7 which is opposite to the end located close to the vacuum element 1 is provided with a tubular channel 11 having an axis AA. The tubular channel 11 which is formed by portions of the

holding element 7 has a part of its periphery identified with reference numeral 12 which is open along the tubular channel or in other words along its axis.

The device operates in the following manner:

The attachment element 1 is placed with its elastic member 2 against a surface for attachment, and the holding element 1 is turned to a position shown in Figure 1 so that with the side walls 8, 9 and the rounding 13 which serve as a cam, through the rod 4 and the insert 3 connected with the elastic member 2 a vacuum is formed in the attaching element 1 and the latter is attached to the surface. As shown in Figure 6 a corresponding accessory, for example a shower head is placed inside the tubular channel 11 and held in the holding element 3. By turning of the attaching element 1 in direction of the arrow A it can be installed in any position on the surface around the axis of the attachment element A. The device, for example the showerhead 18 can be turned inside the channel 11 around the axis of the channel. Therefore the shower accessory can be arranged in any spacial orientation due to the possibility of turning of the corresponding parts relative to two mutually perpendicular axis in particular the axis of the attaching element 1 and the axes, of the tubular channel 11 of the holding element 7.

Figure 3 shows the device which is similar to the device of Figure 1 and 2 having a holder 14. It can be used in various combinations, for example for holding a towel bar or a shower bar.

Figures 4 and 5 are views showing another modification of the inventive device. Here the device has two attaching elements 1 and two holding elements 7' connected to the attaching elements 1. The attaching elements 1 with the holding elements 7' are spaced from one another in an axial direction, or in other words in direction of the axis of the tubular channels 11'. Here the tubular channels 11' in contrast to the tubular passage 11 of the first embodiment, are peripherally closed. A bar-shaped 15 is inserted in two tubular channels 11" and therefore held in the two holding elements 7'. The bar-shaped element 15 can be used for example as a towel bar. As can be seen from Figure 4 the axis of the bar-shaped element 15 extends substantially parallel to the pivot axes of the holding elements 7'.

In this construction one displacement of the bar 15 causes turning of the holding elements 7' between their operative position and inoperative position.

An additional holding element 17 is arranged slidably on the bar-shaped element 15. The additional holding element 17 can have a first peripherally open tubular portion 18 with which it can be held on the bar-shaped element 15, for example slidably, and tightly retained on it and another opposite portion 19 which has a further peripherally open tubular passage. The peripherally open tubular passage of the portion 19 of the additional holding element 17 can be used for holding a shower accessory for example the shower bar.

The walls of the holding elements 7, 7' which form tubular passages 11, 11' can be rigid, so that the corresponding accessories can be inserted axially in the tubular passages. On the other hand, these walls can be also somewhat elastic, so that the corresponding accessories can be pushed through the open peripheral part of the tubular channels.

The tubular channels 11, 11' described herein above are generally tubular channels and can have a cylindrical inner surface. On the other hand they also can have a conical inner surface, so that a shower attachment inserted in the tubular channel with a conical inner surface, is reliably held in the conical tubular channel. The conicity of the tubular channel reduces the inner diameter

of the tubular channel from one axial end of the tubular channel to the other.

It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of constructions differing from the types described above.

While the invention has been illustrated and described as embodied in device for holding shower accessories, it is not intended to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention.

What is claimed as new and desired to be protected by Letters Patent is set forth in the appended claims.